

Home ACCIDENT

Data

Statistical Resources

IN PLANNING a safety program, a health department depends on the statistician for the facts about the number and nature of home accidents: How many deaths are caused? How many injuries occur? What age groups are most affected? What situations or objects are associated? Information of this kind helps define immediate and long-term objectives.

Although current figures on nonfatal home accident injuries are scanty, data on injuries from home accidents are being collected in the National Health Survey. Estimates of home accident injuries for the United States will be available soon for quarterly periods commencing with July–September 1957. After a year's information has been collected, there will be data on home accident injuries by age and sex, for urban and rural areas, and for the four broad geographic regions of the country. After 2 years, figures will be classified for 11 geographic divisions, with separate data for 8 metropolitan areas of 2 million or more, other

standard metropolitan areas, all other urban areas, and rural areas. A farm and nonfarm breakdown will also be available.

From figures now available we know that falls are outstanding as causes of death. Minor injuries from nonfatal home accidents are primarily cuts or burns. Women have minor injuries more frequently than men. Home accidents are especially frequent among children and elderly persons. Poisonous chemicals common in households—kerosene, detergents, metal polish, bleaches—are responsible for many accidents to children under 5 years old.

To obtain incidence data for home accident injuries, the health department team may try an area survey, a study of hospital and clinic admissions, or an arrangement with physicians whereby cases treated are reported to the health department. A survey is expensive, while the other two methods give unrepresentative and incomplete coverage, especially for minor injuries. The choice can best be made by relating the program objectives to the kind and quality of information that may be collected and the cost of obtaining it.

The statistician can help measure progress of the program. Several years may elapse before the death and injury rates are affected. In the meantime, staff members are gaining experience; hazards are corrected; knowledge of hazards is improved; and public reaction may be judged by repeated requests for literature or speakers. More suggestions of this kind are given in a guide to the collection, analysis,

Based on an address by Evelyn Halpin, Ph.D., program analyst, National Office of Vital Statistics, Bureau of State Services, Public Health Service. Dr. Halpin's paper and the one by Dr. Cameron, which follows, were given at a joint meeting of the health education section and the statistical and clerical section of the Southern Branch of the American Public Health Association, Asheville, N. C., May 31, 1957.

and interpretation of service statistics in home accident prevention, developed by the Public Health Conference on Records and Statistics in 1956 (*Public Health Reports*, June 1957, pp. 494-498).

With the help of a records analyst, nurses and sanitarians may discover how to study or supplement their records so as to learn what portion of their time is spent on home accident prevention and what they have accomplished. They may also learn from him to apply sampling methods or periodic studies so that the burden of paperwork will be lightened.

Uniform definitions improve communication and measurement. For this reason, the American Public Health Association, the Public Health Service, and the National Safety Council sponsored a Conference on Definitions of Accidents in April 1957. While the tentative definitions prepared by the conference should be useful, they do not contain the classifications needed to analyze data nor do they specify the criteria that may be used in counting accidental injuries. The question of what to count in surveys or special studies must be answered by those who conduct a home safety program.

A basic innovation of the definitions is the presentation of the concept of an accident as a sequence or chain of events growing out of interactions of numerous factors, rather than a single event arising from one cause. This is in keeping with recognition of the multiplicity of agents and forces that influence the occurrence of accidents and the severity of the consequences. The concept of a sequence of events in accident situations, by identifying component factors, helps to indicate where preventive measures will be effective.

Professional guidance is useful in designing simple and effective records. Also, it is desirable to put new or revised record forms through a test before broad application. The public health nurse and the sanitary engineer can help to spot flaws in the forms and suggest modifications. Dummy table forms will outline the end product of any scheme for collecting data and will show whether the information is in the desired form. It is self-defeating to seek more information than can be reasonably and meaningfully tabulated and analyzed.

The statistician provides technical assistance to health officials in collecting and interpreting the figures they need to plan their work. With their help, he supplies information for appraising the importance of home accidents, defining objectives, and assessing accomplishments.

Local Sources

ONE of the first questions raised in the planning of a community safety program is whether it is satisfactory to plan on the basis of information derived from national experience, as recorded by the National Office of Vital Statistics and the National Safety Council, or whether plans should be prepared according to conditions peculiar to the local region, as established by local house-to-house surveys. Certain health departments have gone so far as to develop detailed classification systems to aid in the coding and analysis of accident information.

In the past the buckshot approach has been successful in public health practice because, with a variety of afflictions and causes in a community, almost any constructive measure—sanitation, housing, nutrition, education, or immunization—was bound to have some salutary effect. Today both economy and effectiveness are served by programs that apply specific controls aimed at specific defects. Realization of this need to replace the blunderbuss with the sharpshooter has introduced the term “community diagnosis.” Community diagnosis reaches conclusions based on a comprehensive history of past conditions coupled with specific examination techniques for obtaining a current appraisal of public health status. The scope of its application is limited, however, by the persistence of obsolescent and empirical practices.

Such diagnosis would determine whether or not farm and home safety programs warrant more attention than others. It might reveal, in certain communities, that the greater mor-

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